1. (Previously presented) A flame retardant (FR) for engineering engineering thermoplastic compositions, said FR containing less than 100 ppm of organic solvents with boiling point lower than 250° C. while increasing melt flow index of said compositions and minimizing corrosion of metallic parts being in contact with said compositions, prepared according to the method claim 22, which comprises a mixture of compounds of formula (I) and/or formula (II) and/or formula (III):

$$\begin{array}{c} CH_2-CH-CH_2\\ CH_2-CH-CH_2\\ CH_3\\ C$$

#### Formula (I)

## Formula (II)

$$\begin{array}{c} Br \\ O- CH_2-CH-CH_2 \\ OH \end{array} \\ \begin{array}{c} Br \\ O- CH_2-CH-CH_2 \\ OH \end{array} \\ \begin{array}{c} Br \\ O- CH_2-CH-CH_2 \\ OH \end{array} \\ \begin{array}{c} Br \\ O- CH_2-CH-CH_2 \\ OH \end{array} \\ \begin{array}{c} Br \\ O- CH_2-CH-CH_2 \\ OH \end{array} \\ \begin{array}{c} Br \\ O- CH_2-CH-CH_2 \\ OH \end{array} \\ \begin{array}{c} Br \\ O- CH_2-CH-CH_2 \\ OH \end{array} \\ \begin{array}{c} CH_3 \\ O- CH_2-CH-CH_2 \\ OH \end{array} \\ \begin{array}{c} CH_3 \\ O- CH_2-CH-CH_2 \\ OH \end{array} \\ \begin{array}{c} CH_3 \\ O- CH_2-CH-CH_2 \\ OH \end{array} \\ \begin{array}{c} CH_3 \\ O- CH_2-CH-CH_2 \\ OH \end{array} \\ \begin{array}{c} CH_3 \\ O- CH_2-CH-CH_2 \\ OH \end{array} \\ \begin{array}{c} CH_3 \\ O- CH_2-CH-CH_2 \\ OH \end{array} \\ \begin{array}{c} CH_3 \\ O- CH_2-CH-CH_2 \\ OH \end{array} \\ \begin{array}{c} CH_3 \\ O- CH_2-CH-CH_2 \\ OH \end{array} \\ \begin{array}{c} CH_3 \\ O- CH_2-CH-CH_2 \\ OH \end{array} \\ \begin{array}{c} CH_3 \\ O- CH_2-CH-CH_2 \\ OH \end{array} \\ \begin{array}{c} CH_3 \\ O- CH_2-CH-CH_2 \\ OH \end{array}$$

#### Formula (III)

wherein n is an integer; and

wherein at least 80 mol% of the end groups of all three formulae in the mixture are tribromophenyl-oxo-2-hydroxypropyl groups, and at most 20 mol% of said end groups are glycidyl groups;

said retardant being characterized by:

i) a molecular weight of between 7,000 and 50,000 Daltons;

- ii) a free tribromophenol content less than 0.1 wt% of the whole flame retardant; and
- iii) a content of organic solvents, with boiling point lower than 250°C, lower than 100 ppm of the whole flame retardant.
- 2. (Previously presented) A flame retardant according to claim 1, wherein 85 to 100 mol% of the end groups are tribromophenyl-oxo-2-hydroxypropyl groups and 0 to 15 mol % of the end groups are glycidyl groups.
- 3. (Previously presented) A flame retardant according to claim 1, wherein the content of said organic solvents with boiling point lower than 250°C, is lower than 50 ppm.
- 4. (Previously presented) A flame retardant according to claim 1, comprising from 70 to 100 mol% of modified brominated epoxides BEs of formula (II), from 30 to 0 mol% of partly modified BEs of formula (III), and from 10 to 0 mol% of unmodified BEs of formula (I).
- 5. (Canceled)
- 6. (Previously presented) A flame retardant according to claim 1, having molecular weight higher than 7,000 and lower than 30,000 Daltons.
- 7. (Previously presented) A flame retardant according to claim 1, having an acid number less than 1 mg KOH/g.
- 8. (Previously presented) A flame retardant according to claim 7, having an acid number less than 0.5 mg KOH/g.

- 9. (Previously presented) A flame retardant according to claim 1, having an epoxy equivalent of more than 10,000.
- 10. (Previously presented) A flame-retarded engineering thermoplastic composition, comprising a base polymer selected from the group consisting of polyethylene terephthalate, or polybutylene terephthalate, mixtures of polyethylene terephthalate with polybutylene terephthalate, polyamides, and polycarbonate or its alloys, and further comprising at least one flame retardant according to claim 1.

Claims 11-19 (Canceled).

- 20. (Previously presented) A flame-retarded engineering thermoplastic composition according to claim 10, further comprising hindered phenol antioxidants.
- 21. (Previously presented) A flame-retarded engineering thermoplastic composition according to claim 10, further comprising fillers and/or glass reinforcement and/or antioxidants and/or lubricants and/or pigments and/or anti-dripping agents and/or grades of talc that act as nucleating agents and that reduce the injection molding cycle time.
- 22. (Currently amended) A method for the preparation of a flame retardant (FR) for engineering thermoplastic compositions, said FR containing less than 100 ppm of organic solves solvents with boiling point lower than 250°C. and increasing melt flow index of said compositions while minimizing corrosion of metallic parts being in contact with said compositions, said FR being a high molecular weight brominated expoxide (HMW BE) comprising a mixture of compounds of formula (I) and/or formula (II) and/or formula (III):

### Formula (I)

#### Formula (II)

$$\begin{array}{c} Br \\ O- CH_2-CH-CH_2 \\ OH \end{array} \\ \begin{array}{c} CH_3 \\ O- CH_2-CH-CH_2 \\ OH \end{array} \\ \begin{array}{c} Br \\ O- CH_2-CH-CH_2 \\ OH \end{array} \\ \begin{array}{c} Br \\ O- CH_2-CH-CH_2 \\ OH \end{array} \\ \begin{array}{c} Br \\ O- CH_2-CH-CH_2 \\ OH \end{array} \\ \begin{array}{c} CH_3 \\ O- CH_2-CH-CH_2 \\ OH \end{array} \\ \begin{array}{c} Br \\ O- CH_2-CH-CH_2 \\ OH \end{array} \\ \begin{array}{c} CH_3 \\ O- CH_2-CH-CH_2 \\ OH \end{array} \\ \begin{array}{c} CH_3 \\ O- CH_2-CH-CH_2 \\ OH \end{array} \\ \begin{array}{c} CH_3 \\ O- CH_2-CH-CH_2 \\ OH \end{array} \\ \begin{array}{c} CH_3 \\ O- CH_2-CH-CH_2 \\ OH \end{array} \\ \begin{array}{c} CH_3 \\ O- CH_2-CH-CH_2 \\ OH \end{array} \\ \begin{array}{c} CH_3 \\ O- CH_2-CH-CH_2 \\ OH \end{array} \\ \begin{array}{c} CH_3 \\ O- CH_2-CH-CH_2 \\ OH \end{array} \\ \begin{array}{c} CH_3 \\ O- CH_2-CH-CH_2 \\ OH \end{array} \\ \begin{array}{c} CH_3 \\ O- CH_2-CH-CH_2 \\ OH \end{array} \\ \begin{array}{c} CH_3 \\ O- CH_2-CH-CH_2 \\ OH \end{array} \\ \begin{array}{c} CH_3 \\ O- CH_2-CH-CH_2 \\ OH \end{array}$$

## Formula (III)

wherein n is an integer; and

wherein at least 80 mol% of the end groups of all three formulae in the mixture are tribromophenyl-oxo-2-hydroxypropyl groups, and at most 20 mol% of said end groups are glycidyl groups;

said <u>FR</u> being characterized by a molecular weight of between 7,000 and 50,000 Daltons; and a free tribromophenol content less than 0.1 wt%;

wherein said method comprises the steps of:

- a) preparing low molecular weight brominated epoxide (LMW BE) having a molecular weight of between 650 and 3,500 Daltons, and a content of organic solvents, with boiling point lower than 250°C, lower than 100 ppm of said LMW BE; and
- b) reacting said LMW BE with tetrabromobisphenol-A (TBBA), and with a component selected from the group consisting of tribromophenol (TBP), tribromophenylglycidyl ether and a mixture thereof, in the presence of a catalyst, wherein said reaction takes place

without addition of any solvent, at a temperature of  $\underline{\text{from}}\ 100^{\circ}\text{C}$  to  $250^{\circ}\text{C},$ 

said method being characterized in that it does not include any step of removing the solvent from said high molecular weight brominated expoxide.

# 23. (Canceled)